

SYNONYMICAL NOTES ON NORTH AMERICAN
SPHECOID WASPS: III¹. (HYMENOPTERA).

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III. THE NEARCTIC SPECIES OF *Diodontus* CURTIS²

During the preparation of the section on Psenini for the forthcoming synoptic catalog of North American Hymenoptera, an examination of the types of *Diodontus* in the U. S. National Museum collection and study of the Holarctic material in that and my personal collections have enabled me to reach different conclusions from those expressed by Malloch in his revision.³ The following notes are offered at this time, since an elaborate treatment will not be possible in the aforementioned catalog.

The Nearctic species are referable to *Diodontus s. str.* Apparently most of the Oriental forms belong to the subgenus *Eopsenus* Gussakovskij.

Diodontus (Diodontus) frontalis (Fox).

Psen frontalis Fox, 1898. Trans. Amer. Ent. Soc. 25: 4 (♀; Utah, N. Mex.; type in Academy of Natural Sciences, Philadelphia).

Neofoxia frontalis (Fox), Viereck, 1901. Trans. Amer. Ent. Soc. 27: 342.

Diodontus frontalis (Fox), Malloch, 1933. Proc. U. S. Natl. Mus. 82, Art. 26: 4 (♀, ♂; Colo.).

Diodontus occidentalis Malloch, 1933, not Fox, 1892. *Op. cit.*, p. 5 (♀; Tallac Lake, Calif.; type in U. S. National Museum).
NEW SYNONYMY.

Diodontus hesperus Pate, 1944. Canad. Ent. 76: 133 (new name for *occidentalis* Malloch, not Fox). NEW SYNONYMY.

The series of this species before me comprising the unique type of *occidentalis*, the 3 specimens of *frontalis* mentioned by Malloch, and 13 additional specimens from Washington, California and Arizona, show variation in regard to the propodeal sculpture adjacent

¹ Notes I and II were published in this journal, vol. 43: 18-21, 1948.

² Not the *Diodontus* of European authors, the species of which are properly referable to *Xylocclia* Rohwer (see Pate, Mem. 9, Amer. Ent. Soc., footnote 69, p. 23, 1937).

³ Proc. U. S. Natl. Mus. 82, Art. 26: 1-60, 2 pls., 1933.

stated in the original description. This incorrect sexing is evident in the original description, for Rohwer refers to the short, stout antennae thickening toward the apex, which is true only in female *Diodontus*, the males having more or less moniliform antennae. However, some time subsequent to the original description Rau sent in two males, and these were the basis for Malloch's interpretation of *corusanigrens*, as is evident from his remarks as to the character of the interantennal prominence. I do not know why Malloch considered these males as part of the type series, as he stated, for neither bears a type label. At any rate, Rohwer's type is conspecific with the type of *sulcatus* Malloch, and is so similar in every essential with the type series of *sulcatus* as to lead me to believe that Malloch may never have actually examined Rohwer's type. Pate has already commented on the identity of *sulcatus* and *trisulcus*.

This species inhabits almost as extensive a range as *atratus parenosas*. However, it has no homologue in the Palaearctic region so far as I can determine. I have seen material from the Eastern States from New Hampshire to Tennessee, and it occurs also in Missouri and Kansas. It has been reared from nests in sumac, elder and pith. Nothing is known as to the prey.

Diodontus (Diodontus) alienus n. sp.

The present form, an anomalous member of the North American fauna, has its closest relative in the Palaearctic *schlencki* (Tournier), which de Beaumont records from central and northern Europe. It differs from the other Nearctic species (and agrees with *schlencki*) in the female in the absence of apical fringes of long hairs on sternites four and five, the lack of a ridge circumscribing a semi-elliptical depressed area at the base of the second sternite, the presence on the outer surface of the mid tibia at the apex of a longitudinal flattened area margined anteriorly by a short ridge and posteriorly by a row of several short, stout spines, and the feebly emarginate median lobe of the clypeus. The male of *alienus* is unknown. Assuming that it will be very close structurally to *schlencki*, it should be readily separable from males of the other Nearctic species by the presence of tyloides on all flagellar segments and lack of a semi-elliptical depressed area at the base of the second sternite.

Although *alienus* is closely related to *schlencki*, it appears to be specifically distinct. The complete lack of a transverse facial carina, the narrower interantennal process, the more densely punctate mesopleuron, and the lateral carina on the dorsum of the abdominal

petiole present only on the basal third all serve to distinguish it from *schencki*.

Type: ♀; Camino, Eldorado Co., California; June 27, 1948; (H., M., G., and D. Townes); [Krombein collection]. Placed on loan deposit in the U. S. National Museum.

Female. 6.1 mm. long, forewing 4.1 mm. Black; flagellum beneath, fore and mid tibiae beneath, fore and mid tarsi entirely, and narrow annulations at apices of all femora, tibiae and first three segments of hind tarsus pale reddish. Vestiture silvery and glistening, very dense and decumbent on clypeus and supraclypeal area, sparser and more or less erect elsewhere on head and thorax; apical fringes of long hairs lacking on fourth and fifth sternites. Wings hyaline, stigma and nervures fuscous.

Head shining except for clypeus and supraclypeal area; apical margin of clypeus with two small blunt teeth in middle separated by a narrow, shallow emargination, the clypeus and supraclypeal area with dense small punctures; transverse facial carina lacking; longitudinal frontal carina narrowly sulcate from base of supraclypeal area to the interantennal area where the expanded part is shorter and narrower than in *atratus parenosas*; front with moderate punctures which are subcontiguous in middle and sparser towards eyes; postocellar distance slightly greater than ocellocular distance (9:8); vertex punctate, not at all striate; temples striato-punctate.

Thorax shining; mesonotum with moderate punctures which are denser toward sides and anteriorly, without rugulae antero-laterally; mesopleuron with moderate punctures most of which are separated by about the width of a puncture; dorsum of propodeum adjacent to enclosure with fine, close, oblique rugulae, posterior surface striato-punctate on upper two-thirds, lateral surface obliquely rugulose.

Abdomen shining, the petiole with dorsal sulcus and lateral carina present on basal third only; second sternite without a semi-elliptical depressed area at base margined by a rounded ridge; pygidial area very narrow, finely punctate, the width at bases of lateral ridges only one-third the length.

Forewing with third submarginal cell receiving the second recurrent nervure near the base, the cell twice as long on cubital vein as on radial vein.

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The following key will be of service in separating the forms of *Diodontus* in North America.

1. Female: transverse facial carina lacking; mid tibia on outer surface at apex with a longitudinal flattened area margined anteriorly by a short ridge and posteriorly by a row of several short, stout spines; apices of sternites four and five without fringes of long hairs; pygidium very narrow, the basal width only one-third the length. Male unknown, but presumably tyloides present on all flagellar segments and second sternite with no trace of a basal depressed, semi-elliptical area.

alienus, new species

Transverse facial carina present. Female: mid tibia evenly convex at apex, not modified as above; apices of sternites four and five with fringes of long hair; pygidium broader, the basal width two-thirds or more the length. Male: always with some vestiges of the depressed, semi-elliptical area at base of second sternite which is so strongly developed in the females; tyloides lacking on at least the last two flagellar segments 2

2. Broad median sulcus and lateral carina present only on basal third of dorsum of abdominal petiole; interantennal prominence of female very broad, the greatest width always one-half or more the length; antennal tyloides of male small, oval, shining and prominent, present on all flagellar segments except the last two *frontalis* (Fox)

Broad median sulcus and lateral carina present on nearly the entire length of the petiole; interantennal prominence of female narrower, the greatest width never as much as half the length; antennal tyloides of male linear, discernible only with difficulty, apparently lacking on the last six flagellar segments 3

3. Longitudinal carina on face sulcate to its intersection with the transverse carina (very narrowly so in male); face and vertex punctate only; size larger, females 6.1–7.1 mm. long (avg. 6.4), males 5.6–6.4 mm. (avg. 5.9) *trisulcus* (Fox)

Longitudinal carina on face not sulcate for some distance above its intersection with the transverse carina; face and vertex usually noticeably striato-punctate; size smaller, females 4.4–6.1 mm. long (avg. 5.3), males 4.6–6.1 mm. (avg. 5.2).

atratus parcnosus Pate